



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

**APR 29 2011**

REPLY TO THE ATTENTION OF:

**CERTIFIED MAIL**  
**RETURN RECEIPT REQUESTED**

James S. Smith  
Midland Site Plant Manager  
Dow Corning Corporation  
Midland Plant  
3901 South Saginaw Road  
Midland, Michigan 48686

Dear Mr. Smith:

This is to advise you that the U.S. Environmental Protection Agency has determined that the Dow Corning Corporation's facility at 3901 South Saginaw Road, Midland, Michigan (facility) is in violation of the Clean Air Act (CAA) and associated state or local pollution control requirements. A list of the requirements violated is provided below. We are today issuing to you a Notice of Violation and Finding of Violation (NOV/FOV) for these violations.

The CAA requires the development of Primary and Secondary National Ambient Air Quality Standards to protect public health and welfare. To attain and maintain these standards, each state is required to develop an implementation plan. Michigan's State Implementation (MI SIP) includes the following requirements:

- 1) There are limitations on the quantity of volatile organic compound (VOC) emissions which can be emitted from stacks. These limits are incorporated into Dow Corning's Source-Wide Permit to Install Number MI-PTI-A4043-2008 and Dow Corning's Title V Permit Number MI-ROP-2008-A4043. Specifically, Emission Unit EU515-01 listed in the facility's Title V permit has a pound per hour (lb/hr) VOC limit of 226.5, which the facility exceeded for 12.5 hours between August 17, 2010 and August 19, 2010, with the maximum hourly VOC emission rate during the event at 336 lb/hr VOCs.

EPA also finds that Dow Corning is in violation of 40 C.F.R. Part 63, Subpart FFFF, Miscellaneous Organic Chemicals (MON). From August 2010 to December 2010, Dow Corning exceeded the 12-month rolling time period limit for toluene, a hazardous air pollutant (HAP), by emitting over the 10 ton per year (tpy) limit set forth in Section 2, Source Wide Conditions, in the Source-Wide Permit to Install MI-PTI-A4043-2008 and Dow Corning's Title V Permit. In December 2010, Dow Corning exceeded the aggregate HAP limit on a 12-month rolling time period, also listed in both the Permit to Install and in the Title V Permit. Dow Corning is now subject to the MON and has not fulfilled any of the resulting requirements.

EPA finds that the Dow Corning's facility has violated the above-listed MI SIP requirement as incorporated into Dow Corning's Title V Permit and Source-Wide Permit to Install MI-PTI-A4043-2008. EPA also finds that Dow Corning's facility has violated the MON, as incorporated into Dow Corning's Title V Permit. Since Dow Corning has violated its Title V permit, you have also violated Title V of the CAA and its associated regulations, which require compliance with the terms and conditions of Title V permits. Additionally, in violating the MI SIP requirements and the Source-Wide Permit to Install, you have violated Title I of the CAA and its implementing regulations, which require compliance with the terms and conditions of the MI SIP and permits to install.

Section 113 of the CAA gives us several enforcement options to resolve these violations, including: issuing an administrative compliance order, issuing an administrative penalty order, bringing a judicial civil action and bringing a judicial criminal action.

We are offering you the opportunity to request a conference with us about the violations alleged in the NOV/FOV. A conference should be requested within 10 days following receipt of this notice. A conference should be held within 30 days following receipt of this notice. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply and the steps you will take to prevent future violations. Please plan for your facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.

The EPA contact in this matter is Molly DeSalle. You may call her at (312) 353-8773 if you wish to request a conference. EPA hopes that this NOV/FOV will encourage Dow Corning's compliance with the requirements of the CAA.

Sincerely yours,



Cheryl L. Newton  
Director  
Air and Radiation Division

cc:

Chris Hare, District Supervisor  
Michigan Department of Natural Resources and Environment  
Saginaw Bay District Office  
401 Ketchum Street  
Bay City, Michigan 48708

Tom Hess  
Michigan Department of Environmental Quality  
Air Quality Division  
P.O. Box 30260  
Lansing, Michigan 48909

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5**

**IN THE MATTER OF:**

**Dow Corning Corporation  
Midland, Michigan**

Proceedings Pursuant to  
the Clean Air Act  
42 U.S.C. § 7401 et seq

)  
)  
) **NOTICE OF VIOLATION and  
FINDING OF VIOLATION**  
)  
)

**EPA-5-11-MI-06**

**NOTICE AND FINDING OF VIOLATION**

Dow Corning Corporation (you or Dow Corning) owns and operates a large facility, at 3901 South Saginaw Road; Midland, Michigan (facility), which includes the Grignard process. The Grignard process, defined in Dow Corning's permits as emission unit EU515-01, is responsible for the production of chlorosilanes. The Grignard process effectively generates a strong bond between silicone and carbon, which Dow Corning uses in other processes at the facility.

The U.S. Environmental Protection Agency (EPA) is sending this Notice of Violation and Finding of Violation (NOV/FOV or Notice) to notify you that we have identified volatile organic compound (VOC) emissions from the Grignard process, EU515-01, at your facility in excess of the limits specified in your Title V permit, Source-Wide Permit to Install MI-PTI-A4043-2008 and the Michigan State Implementation Plan (MI SIP). These exceedances constitute violations of the Clean Air Act (the Act or CAA).

In addition, your facility-wide emissions of toluene, a hazardous air pollutant (HAP), and your facility-wide emissions of HAPs have also made your facility subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Organic Chemicals (MON), 40 C.F.R. Part 63 Subpart FFFF. Your failure to comply with the requirements of the NESHAP MON after your facility became subject to these regulations constitutes further violations of the CAA.

Section 113 of the Act provides you with the opportunity to request a conference with us to discuss the violations alleged in the NOV/FOV. This conference will provide you a chance to present information on the identified violations, any efforts you have taken to comply, and the steps you will take to prevent future violations. Please plan for the facility's technical and management personnel to take part in these discussions. You may have an attorney represent and accompany you at this conference.


## Explanation of Violations

1. The permits and permit conditions relevant to this NOV/FOV are as follows:
  - a. Michigan Department of Environmental Quality (MDEQ) issued Title V Permit MI-ROP-2008-A4043 (Title V Permit) and Source-Wide Permit to Install MI-PTI-A4043-2008 to the facility effective September 15, 2008. Section 1 for EU515-01 of the Title V Permit prohibits EU515-01 from emitting VOC emissions over 226.5 pounds per hour (lb/hr).
  - b. Dow Corning's Title V Permit specified that the facility would be subject to the NESHAP MON, 40 C.F.R. Part 63 Subpart FFFF if facility-wide HAP emissions were to exceed 10 tons per year (tpy) for a single HAP or 25 tpy for any aggregate of HAPs.
  - c. Dow Corning's Title V permit sets forth a facility-wide emission limit of 10 tons per year for any individual HAP, and 25 tons per year aggregate HAP limit, both based on a 12-month rolling time period, beginning as of the effective date of the MON.
2. Based on evaluation, EPA has determined the following:
  - a. For 12.5 hours during August 17-19, 2010, emissions unit EU515-01 exceeded the VOC lb/hr limit, with the maximum hourly VOC emission rate at 336 lb/hr VOCs. This violated the emission limit of 226.5 lb/hr for this emission unit set forth in the facility's Title V Permit Number MI-ROP-2008-A4043 and the Source-Wide Permit to Install MI-PTI-A4043-2008.
  - b. From August 2010 to December 2010, Dow Corning exceeded the 12-month rolling time period limit for toluene, a hazardous air pollutant (HAP), as defined by Section 112(b) of the CAA, by emitting over the 10 tpy threshold limit. In December 2010, Dow Corning exceeded the aggregate HAP limit on a 12-month rolling time period, as set forth in Exhibit 1 to this NOV.
  - c. Upon Dow Corning's exceedance of its 10 ton per year permit limit of any HAP by emitting toluene in excess of this permit limit, which continued through December 2010, and again in December 2010 when Dow Corning violated its 25 ton per year aggregate HAP limit, Dow Corning became subject to the NESHAP MON.
  - d. Dow Corning is not compliance with the notification and reporting requirements of the NESHAP MON because it failed to submit:
    - i. An Initial Notification that it had become subject to the MON requirements, as specified by 40 C.F.R. § 63.2515(b).
    - ii. A Notification of Intent to Conduct a Performance Test, as required by 40 C.F.R. § 63.2515(c).

- iii. If required for its facility, Dow Corning failed to submit a Precompliance Report, as required by 40 C.F.R. §63.2520(c) and specified in Table 11.
  - iv. Notification of Compliance Status as required by 40 C.F.R. § 63.2520(d) and specified in Table 11.
  - v. Compliance Report as required by 40 C.F.R. § 63.2520(e) and specified in Table 11.
- e. Dow Corning is not in compliance with 40 C.F.R. § 63.2450(a) requiring compliance with the emission limits and work practice standards listed in Tables 1-10 of Subpart FFFF for the following emission units:
- i. Continuous process vents and process vents which may emit hydrogen halide and halogen HAP emissions or particulate matter HAP emissions;
  - ii. Batch process vents;
  - iii. Storage tanks;
  - iv. Transfer racks;
  - v. Equipment leaks;
  - vi. Waste water streams and liquid streams in open systems; and
  - vii. Heat exchange.
- f. Dow Corning failed to conduct performance testing, as defined under 40 C.F.R. § 63.997(d) on closed vent systems and all nonflare control devices under 40 C.F.R. §63.2450(e) and 40 C.F.R. §63.982. Notification of required performance testing is also mandated by 40 C.F.R. §63.7(b)(1).
- g. Dow Corning failed to develop a startup, shutdown and malfunction plan, as required by 40 C.F.R. § 63.6(e)(3) and to incorporate that plan into its Title V permit, as required by 40 C.F.R. § 63.6(e)(3)(ix).
- h. Dow Corning may have additional obligations to operate control devices, and for monitoring, reporting and recordkeeping under 40 C.F.R. Part 63 Subpart FFFF, as the full extent of its operations are known to it, and will become known to EPA in response to this NOV/FOV.

Date

4/29/11

  
Cheryl L. Newton  
Director  
Air and Radiation Division

	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Permit Limits in lbs.	Percent of Limit Used
	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs	lbs		
Acetonitrile Monthly Total	1	6	7	3	5	0	4	3	7	5	4		
Acetonitrile 12-Month Rolling Total	47	50	57	58	55	48	49	45	51	45	45	20000	0
Allyl chloride Monthly Total	3	8	3	1	2	1	2	9	2	1	2		
Allyl chloride 12-Month Rolling Total	365	371	372	372	370	273	274	281	242	33	34	20000	0
1,3-Butadiene Monthly Total	0	0	0	0	0	0	0	0	0	0	0		
1,3-Butadiene 12-Month Rolling Total	5	5	5	5	5	5	5	5	5	5	5	20000	0
Benzene Monthly Total	38	38	32	28	56	13	42	396	34	35	25		
Benzene 12-Month Rolling Total	666	652	646	655	667	436	446	820	829	795	801	20000	4
Biphenyl Monthly Total	20	20	20	20	20	19	20	20	20	20	20		
Biphenyl 12-Month Rolling Total	244	243	244	244	244	243	243	243	243	243	243	20000	1
Cadmium Monthly Total	0	0	0	0	0	0	0	0	0	0	0		
Cadmium 12-Month Rolling Total	6	6	6	6	6	6	6	6	6	6	6	20000	0
Chlorine Monthly Total	31	31	31	31	31	31	31	31	31	31	31		
Chlorine 12-Month Rolling Total	372	372	372	372	372	372	372	372	372	372	372	20000	2
Chlorobenzene Monthly Total	55	29	16	41	157	74	182	1240	145	166	150		
Chlorobenzene 12-Month Rolling Total	521	539	551	580	673	652	772	1932	2056	2184	2303	20000	12
Chloroform Monthly Total	0	0	0	0	0	0	0	0	0	0	0		
Chloroform 12-Month Rolling Total	63	63	63	63	63	63	63	63	63	63	63	20000	0
Chromium Monthly Total	1	1	0	0	0	0	0	0	0	1	1		
Chromium 12-Month Rolling Total	7	7	7	7	7	7	7	7	7	7	7	20000	0
Ethyl chloride Monthly Total	9	14	5	1	9	2	4	521	32	2	1		
Ethyl chloride 12-Month Rolling Total	1258	1195	1172	1166	1098	184	182	665	637	632	625	20000	3
Ethylbenzene Monthly Total	44	24	47	35	35	26	29	45	34	30	17		
Ethylbenzene 12-Month Rolling Total	676	625	610	596	559	489	465	441	446	427	384	20000	2
Ethylene Glycol Monthly Total	0	0	0	0	0	4	2	1	0	0	0		
Ethylene Glycol 12-Month Rolling Total	3	3	3	3	3	4	7	7	7	7	7	20000	0
Formaldehyde Monthly Total	11	10	10	8	9	8	9	9	10	11	11		
Formaldehyde 12-Month Rolling Total	118	119	120	121	122	123	123	124	130	131	131	20000	1
Hexachlorobenzene Monthly Total	0	0	0	0	0	0	0	0	0	0	0		
Hexachlorobenzene 12-Month Rolling Total	0	0	0	0	0	0	0	0	0	0	0	20000	0
Hexane Monthly Total	64	55	98	48	99	62	46	494	62	52	50		
Hexane 12-Month Rolling Total	1072	1097	1165	1175	1205	947	945	1376	1368	1299	1287	20000	6
Hydrochloric acid Monthly Total	355	331	312	353	372	338	371	467	419	474	343		
Hydrochloric acid 12-Month Rolling Total	4743	4816	4828	4835	4825	4811	4768	4785	4832	4794	4671	20000	23
Iso-Octane Monthly Total	4	3	4	3	2	2	2	3	5	4	0		
Iso-Octane 12-Month Rolling Total	32	31	32	33	32	32	32	32	34	36	34	20000	0
Manganese Monthly Total	0	0	0	0	0	0	0	0	0	0	0		
Manganese 12-Month Rolling Total	7	7	7	7	7	7	7	7	7	7	7	20000	0
Methanol Monthly Total	512	488	555	520	585	615	911	629	506	569	538		
Methanol 12-Month Rolling Total	5041	5265	5273	5438	5655	5899	6315	6646	6642	6771	6859	20000	34
Methyl chloride Monthly Total	6	8	16	22	19	20	20	29	18	19	19		
Methyl chloride 12-Month Rolling Total	200	196	204	212	207	179	175	191	197	200	207	20000	1
Methyl isobutyl ketone Monthly Total	9	3	9	6	9	7	9	5	9	4	9		
Methyl isobutyl ketone 12-Month Rolling Total	68	67	70	73	74	78	78	74	78	73	80	20000	0
Naphthalene Monthly Total	6	5	6	5	5	6	5	5	5	7	4		
Naphthalene 12-Month Rolling Total	67	66	67	67	67	68	67	67	67	68	63	20000	0
Nickel Monthly Total	0	0	0	0	0	0	0	0	0	0	0		
Nickel 12-Month Rolling Total	2	1	1	1	1	1	0	0	0	0	0	20000	0
Tetrachloroethylene Monthly Total	1	1	1	1	1	1	1	3	1	1	3		

## CERTIFICATE OF MAILING

I, Tracy Jamison, certify that I sent a Notice and Finding of Violation, No.

EPA-5-11-MI-06, by Certified Mail, Return Receipt Requested, to:

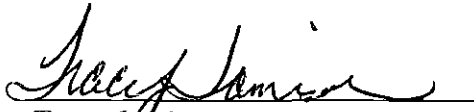
James S. Smith  
Midland Site Plant Manager  
Dow Corning Corporation  
Midland Plant  
3901 South Saginaw Road  
Midland, Michigan 48686

I also certify that I sent copies of the Notice of Violation and Finding of Violation by first-class mail to:

Chris Hare, District Supervisor  
Michigan Department of Natural Resources and Environment  
Saginaw Bay District Office  
401 Ketchum Street  
Bay City, Michigan 48708

Tom Hess  
Michigan Department of Environmental Quality  
Air Quality Division  
P.O. Box 30260  
Lansing, Michigan 48909

On the 29 day of April 2011.

  
Tracy Jamison,  
Office Automation Assistant  
AECAB, PAS

CERTIFIED MAIL RECEIPT NUMBER: 7009 1680 0000 7670 4472